CLAIMS

What is claimed is:

1   1.   In a speech recognition system, a method of speech recognition comprising:

2   (a)   receiving an input;

3   (b)   automatically creating a context-enhanced database using information

4   derived from said input;

5   (c)   preparing a first output from a speech signal by performing a speech

6   recognition task to convert said speech signal into said first output comprising

7   computer-processable segments, wherein said context-enhanced database is accessed

8   to improve the speech recognition rate;

9   (d)   enabling editing of said output to generate a final voice-generated output;

10   and

11   (e)   making said final voice-generated output available.

2.   The method of claim 1, wherein said speech signal represents words and said
      words are processed separately during said speech recognition task by
      identifying a matching word in said context-enhanced database for each of said
      words, and adding said matching word to said first output.

1   3.   The method of claim 1, wherein during said speech recognition task, said speech

2   signals are analyzed.

1   4.   The method of claim 2, wherein during said speech recognition task, said speech

2   signals are analyzed.

1   5.   The method of claim 2, wherein a second database is accessed to find a

2   matching word for each of said words for which no matching word was found in

3   said context-enhanced database.

1   6.   The method of claim 1, wherein at least two steps selected from the group

2   consisting of steps (a), (b), (c), (d), and (e) are performed concurrently.

1   7.   The method of claim 1, wherein said computer-processable segments are

2   processable words.

1   8.   The method of claim 1, wherein said speech signal is interpreted as part of said

2   speech recognition task in light of words included in said context-enhanced

3   database.

1   9.   The method of claim 1, wherein the said input is received from an application

2   program.

1   10.   The method of claim 1, wherein said input is received from at least one of the

2   group consisting of an electronic mail, a history of electronic mails, a document

3   currently on a screen of the computer system, a chain of related documents,

4   linked documents, a folder, a directory, an attachment received with an

5   Electronic mail, a spread sheet, a cache memory of a computer system, history

6   information recorded by a web browser, a knowledge management system, an

7   incoming message, a received facsimile, and a result of a database search.

1   11.   The method of claim 1, wherein said voice-generated output is generated based

2   upon a context defined by said context-enhanced database.

1   12.   The method of claim 1, wherein said voice-generated output is a physical output.

1   13.   The method of claim 12, wherein said voice-generated output is temporarily put

2   into a memory.

1   14.   The method of claim 1, wherein said editing is enabled by highlighting words of

2   said first output having a predetermined likelihood of misinterpretation of said

3   speech signal.

1   15.   The method of claim 1, wherein said context-enhanced database is derived from

2   an existing database based upon said input.

    16.   The method of claim 1, wherein said context-enhanced database is dynamically

              generated.

    17.   The method of claim 1, wherein said context-enhanced database is dynamically

              updated.

1   18.   The method of claim 1, wherein one or more of a synonym lexicon and a

2   meaning variants database is accessed when preparing said voice-generated

3   output.

1   19.   A speech processing system comprising:

2   a first module, said first module automatically creating a context-enhanced

3   database using information derived from an input;

4   a speech recognition system, said speech recognition system converting a

5   speech signal into segments that are processable by said speech recognition system,

6 wherein said context-enhanced database is accessed to find matching segments for

7 said segments;

8 a second module, said second module preparing an output comprising said

9 matching segments; and

10 a third module, said third module enabling editing of said output to generate a

11 final voice-generated output, and for making said final voice-generated output available.

1 20. The system of claim 19, wherein said input is received from at least one of the

2 group consisting of an electronic mail, a history of electronic mails, a document

3 currently on a screen of a computer system, a chain of related documents, linked

4 documents, a folder, a directory, an attachment received with an electronic mail,

5 a spread sheet, a cache memory of a computer system, history information

6 recorded by a web browser, a knowledge management system, an incoming

7 message, a received facsimile, and a result of a database search.

1 21. The system of claim 19, wherein said speech recognition system processes

2 words separately by identifying a matching word in said context-enhanced

3 database for each of the words, and adding said matching word to said output.

1 22. The system of claim 19, wherein the speech recognition system analyzes said

2 speech signals.

1 23. The system of claim 19, comprising a second database, wherein said second

2 database is accessible if no matching word is available in said context-enhanced

3 database.

1 24. The system of claim 19, comprising a fourth module that derives said input from

2 an application program.

1   25.   The system of claim 19, wherein said voice-generated output is generated based
2   upon a context defined by said context-enhanced database.

1   26.   The system of claim 19, wherein said voice-generated output is a physical
2   output.

1   27.   The system of claim 19, further comprising a memory for storing said voice-
2   generated output.

1   28.   The system of claim 19, further comprising a fifth module that enables said
2   editing of said output.

1   29.   The system of claim 19, further comprising a database from which said context-
2   enhanced database is derived.

1   30.   The system of claim 19, further comprising a synonym lexicon which is linked
2   when used.

1   31.   The system of claim 19, further comprising a meaning variants database which is
2   linked when used.

1   32.   The system of claim 19, wherein said first module for automatically creating a
2   context-enhanced database is a pre-processing module.

1   33.   The system of claim 19, further comprising a meaning extraction system.

1   34.   The system of claim 21, wherein said speech recognition system analyzes said
2   speech signals.

1 35. The system of claim 21, comprising a second database, wherein said second
2   database is accessible if no matching word is available in said context-enhanced
3   database.

1 36. The system of claim 21, comprising a fourth module that derives said input from
2   an application program.

1 37. The system of claim 21, wherein said voice-generated output is generated based
2   upon a context defined by said context-enhanced database.

38. The system of claim 21, wherein said voice-generated output is a physical
    output.

39. The system of claim 21, further comprising a memory for storing said voice-
    generated output.

40. The system of claim 21, further comprising a fifth module that enables said
    editing of said output.

1 41. The system of claim 21, further comprising a database from which said context-
2   enhanced database is derived.

1 42. The system of claim 21, further comprising a synonym lexicon which is linked
2   when used.

1 43. The system of claim 21, further comprising a meaning variants database which is
2   linked when used.

1   44.   The system of claim 21, wherein said first module for automatically creating a
2   context-enhanced database is a pre-processing module.

1   45.   The system of claim 21, further comprising a meaning extraction system.

1   46.   A machine-readable storage, having stored thereon a computer program having
2   a plurality of code sections executable by a machine for causing the machine to
3   perform the steps of:
4   (a)   receiving an input;
5   (b)   creating a context-enhanced database using information derived from said
6   input;
7   (c)   performing a speech recognition task to convert a speech signal into a first
8   output comprising computer-processable segments, wherein said context-enhanced
9   database is accessed in order to improve the speech recognition rate;
10   (d)   enabling editing of said output to generate a final voice-generated output;
11   and
12   (e)   making said final voice-generated output available.

1   47.   The machine-readable storage of claim 46, wherein said speech signal
2   represents words and said words are processed separately during said speech
3   recognition task by identifying a matching word in said context-enhanced
4   database for each of said words, and adding said matching word to said first
5   output.

1   48.   The machine-readable storage of claim 46, wherein during said speech
2   recognition task, said speech signals are analyzed.

1   49.   The machine-readable storage of claim 47, wherein during said speech
2   recognition task, said speech signals are analyzed.

1   50.   The machine-readable storage of claim 47, wherein a second database is
2   accessed to find a matching word for each of said words for which no matching
3   word was found in said context-enhanced database.

1   51.   The machine-readable storage of claim 46, wherein at least two steps selected
2   from the group consisting of steps (a), (b), (c), (d), and (e) are performed
3   concurrently.

    52.   The machine-readable storage of claim 46, wherein said computer-processable
          segments are processable words.

    53.   The machine-readable storage of claim 46, wherein said speech signal is
          interpreted as part of said speech recognition task in light of words included in
          said context-enhanced database.

1   54.   The machine-readable storage of claim 46, wherein the said input is received
2   from an application program.

1   55.   The machine-readable storage of claim 46, wherein said input is received from at
2   least one of the group consisting of an electronic mail, a history of electronic
3   mails, a document currently on a screen of the computer system, a chain of
4   related documents, linked documents, a folder, a directory, an attachment
5   received with an electronic mail, a spread sheet, a cache memory of a computer
6   system, history information recorded by a web browser, a knowledge

7   management system, an incoming message, a received facsimile, and a result of

8   a database search.

1   56.   The machine-readable storage of claim 46, wherein said voice-generated output

2   is generated based upon a context defined by said context-enhanced database.

1   57.   The machine-readable storage of claim 46, wherein said voice-generated output

2   is a physical output.

1   58.   The machine-readable storage of claim 57, wherein said voice-generated output

2   is temporarily put into a memory.

1   59.   The machine-readable storage of claim 46, wherein said editing is enabled by

2   highlighting words of said first output having a predetermined likelihood of

3   misinterpretation of said speech signal.

1   60.   The machine-readable storage of claim 46, wherein said context-enhanced

2   database is derived from an existing database based upon said input.

1   61.   The machine-readable storage of claim 46, wherein said context-enhanced

2   database is dynamically generated.

1   62.   The machine-readable storage of claim 46, wherein said context-enhanced

2   database is dynamically updated.

1   63.   The machine-readable storage of claim 46, wherein one or more of a synonym

2   lexicon and a meaning variants database is accessed when preparing said voice-

3   generated output.